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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,829

10/26/2006

Richard W. Siegel

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05/25/2010

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EXAMINER

CHIN, HUI H

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/25/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,829	Applicant(s) SIEGEL ET AL.	
	Examiner HUI CHIN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/8/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The office action is in reference to the Amendment, filed on 4/7/2010.
Claims 1, 10, 11 and 14 have been amended and claim 16 has been canceled. Claims 1-15 and 17-18 are now pending.
2. In view of the Response, the previous rejection of claims 1, 4-15 and 17 under 35 U.S.C. 102(e) as being anticipated by Nelson et al. (US 2005/0027040), claims 2 and 3 under 35 U.S.C. 103(a) as being unpatentable over Nelson et al. (US 2005/0027040) in view of Bernhoff et al. (US 2002/0070428), and claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al. (US 2005/0027040) in view of Bernhoff et al. (US 2002/0070428) are withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yu et al. (CN 1188779).

Yu et al. disclose an electrically conducting high-molecular composite material with positive temp coefficient (PTC) which is prepared from high-molecular crystallizing

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basic material or the mixture of high-molecular crystallizing basic material and another high-molecular material, 5-40 wt% of modified conducting filler (reads on less than 40% by volume) and other assistants through proportioning, mixing, granulating /crushing, shaping, cross-linking and heat treatment, wherein said modified conducting filler serves to regulate the interface force between filler and basic material to disperse the filler non-uniformly and selectively (abstract, claim 1).

The limitations of claims 2 and 3 can be found in Yu et al. at claim 3, where it discloses carbon black.

The limitations of claims 5 and 6 can be found in Yu et al. at page 2, first paragraph, where it discloses various polymers.

The limitations of claims 7 and 17 can be found in Yu et al. at page 2, first paragraph, where it discloses HDPE.

The limitations of claims 8 and 9 can be found in Yu et al. at page 2, first and second paragraphs, where it discloses immiscible polymers.

The limitations of claim 10 can be found in Yu et al. at claim 3, where it discloses 15~100nm.

The limitations of claim 11 can be found in Yu et al. at claim 1, where it discloses 5-40 wt %.

The limitations of claim 12 can be found in Yu et al. at page 2, last paragraph, where it discloses orgaosilane and orgaotitanate.

The limitations of claims 13 and 15 can be found in Yu et al. at page 2, last paragraph, where it discloses octyl group.

The limitations of claim 14 can be found in Yu et al. at claim 1, abstract, and page 2, last paragraph, where it discloses the material.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (CN 1188779), as applied to claims 1-15 and 17, in view of Foulger (US Patent 6,417,265).

The disclosure of Yu et al. is adequately set forth in paragraph 4 and is incorporated herein by reference.

However, Yu et al. are silent on the electric cable.

Foulger discloses a conducting polymer composite comprising polymeric material and a conducting filler such as carbon nanotube to provide a composition for electric field grading in power cables (claims 1 and 9, col. 1, line 29, col. 3, line 38). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to produce a field grading material to be used in cable with the expected success.

Response to Arguments

7. Applicants' arguments filed 4/7/2010 have been fully considered and are not persuasive.

The applicants' remarks have been addressed in the above rejections.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUI CHIN whose telephone number is (571)270-7350. The examiner can normally be reached on Monday to Friday; 8:00am - 5:00pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/
Primary Examiner, Art Unit 1796

/HC/